DENKA FACILITY IN LOUISIANA
(CHLOROPRENE EMISSIONS FROM NEOPRENE MFG.)

Issue:

- EPA's National Air Toxics Assessment (NATA) published in December 2015 identified exposure to chloroprene emissions as posing an increased lifetime cancer risk to people near the Denka Performance Elastomer LLC (Denka) facility in LaPlace, Louisiana. In March 2016, EPA and the Louisiana Department of Environmental Quality (LDEQ) found elevated concentrations of chloroprene in ambient air in the neighborhoods surrounding Denka.

  Chloroprene is one of the 187 pollutants that Congress classified as "hazardous air pollutants," also called air toxics. The Clean Air Act instructs EPA to regulate air toxics by setting standards for listed source categories rather than by setting ambient standards. Therefore, there is no federal ambient air quality standard for chloroprene in the air. The Integrated Risk Information System determines unit risk estimates for inhalation, absorption and ingestion, and is not an air quality standard and cannot be used directly for regulatory purposes.

  In 2018, Denka filed a Request for Reconsideration under the Information Quality Guidelines on the 2010 IRIS Toxicological Review of Chloroprene. Denka developed a new physiologically-based pharmacokinetic (PBPK) model for potential use in improving estimates of how chloroprene is absorbed, distributed, metabolized and excreted by the human body. EPA has implemented its peer review process of the model, and has held a public meeting on October 5-6, 2020.

Background:

- The facility was built in 1964 by the Dupont Company and was purchased by Denka from DuPont in November 2015. This facility is the only place in the U.S. currently manufacturing neoprene. EPA became aware of the potential risk associated with the facility's emissions of chloroprene, a primary chemical used in the manufacture of neoprene, in December 2015 as a result of NATA.

  In March 2016, EPA and LDEQ confirmed that the emissions from the facility were in the ambient air and a need for additional monitoring. In May 2016, EPA began a long-term community ambient air monitoring program. Data from air monitors is posted publicly. EPA also inspected the facility. LDEQ initiated discussions with Denka to reduce emissions of chloroprene. At the State's direction, Denka provided a monitoring plan to assess the ambient air quality impact of emissions from the facility, installed fence-line monitors around the facility, and assessed potential control technologies. In July 2016, EPA, LDEQ, and Denka met with local and regional citizens to inform them about potential health risks of chloroprene and actions the facility was evaluating to control emissions.

  In January 2017, LDEQ and Denka signed a formal Administrative Order on Consent to reduce emissions through installation of a thermal oxidizer and other measures by the end of December 2017. This Order outlines the company's voluntary commitment to reduce

emissions and report on progress.

In June 2017, Denka submitted a Request for Correction (RFC) of the EPA's determination that chloroprene is a likely human carcinogen (the IRIS assessment). Following EPA's January 2018 denial of the RFC, Denka submitted a Request for Reconsideration (RFR) for replacement of the unit risk estimate values with consideration of new science in July 2018. The basis for the RFR is the development of a physiologically-based pharmacokinetic (PBPK) model that was not previously available to be considered in the IRIS assessment for chloroprene. EPA received final peer review comments and a peer review report on the model.

Since March 2018, following the implementation of emission controls being installed by DPE, chloroprene emissions have been reduced by 85% and EPA air monitoring data have shown corresponding significant reductions of chloroprene concentrations in the community. On September 25, 2020, EPA issued a summary report for the community air monitoring project and discontinued the community air monitoring program. Denka voluntarily agreed to continue operating fence-line monitors through 2021.

EPA's chloroprene data indicated that annual averages in the community would be lower except for occasional elevated measurements, or "spikes," that contribute to the averages. In March 2020, EPA began a continuous air monitoring program in order to understand the magnitude and frequency of occasional, but recurring, elevated chloroprene measurements or "spikes." The continuous air monitoring program is scheduled to continue operation into February 2021.

Key External Stakeholders:

☒ Congress ☒ Industry ☒States ☐ Tribes ☒ Media ☒ Other Federal Agency ASTDR

☒ NGO Louisiana Environmental Action Network (LEAN) ☒ Local Governments

☒ Other (name of stakeholder) Concerned Citizens of LaPlace citizens, St. John the Baptist Parish officials

Louisiana Department of Environmental Quality has maintained communication with the Parish President and Council members. In turn, the Parish elected officials are communicating with the citizens in LaPlace. This avenue has provided timely updates and information. There has been a high level of media interest in this site. Local environmental stakeholders have held meetings and posted information on their individual websites. EPA has also met with local environmental stakeholders and the community.

Key Points:

Upcoming Milestones:

- **January 2021** - Based on evaluation of peer review report, EPA-ORD will have the information needed to provide a recommendation on the Request for Reconsideration (RFR).

- **February 2021** - EPA Information Quality Executive Panel decision on the Request for Reconsideration.

- **February 2021** - EPA to complete continuous air monitoring program to determine if there are any additional appropriate and feasible controls that can be applied to continue to reduce emissions.

- **March 2021** - If Request for Reconsideration is granted, ORD will conduct an analysis to evaluate impact of PBPK model on the chloroprene inhalation unit risk and decide to retain or update the existing IRIS inhalation unit risk.

Moving Forward:
The continuous air monitoring program will continue Through February 2021, to determine if chloroprene emission spikes can be further correlated with operational issues. EPA and LDEQ will continue to work with Denka to develop specific actions that can be given additional focus on controlling and reducing chloroprene emissions from their operations.

Point of Contact:
- Lead Office: Region 6
- Other Key Offices: OAR/OECA/ORD